

**Abstract**

An endpoint in a power distribution system includes a transmitter. The transmitter includes a transformer, a half-bridge driver, a first and second driver, and a resonant circuit. A primary winding from the transformer is coupled to a power distribution line, while the secondary winding is coupled to the transmitter. The half-bridge drive circuit selectively asserts drive signals. The resonant circuit has a natural resonant frequency in an audio frequency range. The half-bridge driver is arranged to selectively activate the first and second drivers such that the power-line is modulated with a square-wave signal at a frequency that is associated with encoded data. The half-bridge driver circuit can also be arranged to provide power to the transmitter, and to the endpoint.

**CUSTOMER NO.23552**